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ABSTRACT

Essentially concerned with distance education as innovation in higher education, this paper identifies specific aspects of this innovation through references to three Canadian institutions offering university level courses for credit. It is primarily concerned with Athabasca University in Alberta, a distance education university which originally set out very deliberately to be innovative in all those dimensions that characterize a university, and over time has become more and more traditional in what it does and how it conducts its affairs. References are also made to the Open Learning Institute in British Columbia, which has successfully managed to offer university, technical/vocational, and adult basic education programs under one organizational roof, and the Tele-Universite in Quebec, which offers courses and programs that are much more innovative in their orientation and interdisciplinary character than those offered by the other two institutions. Examples drawn from these three institutions include innovations intended but not achieved; intended innovations that did succeed; and innovations that resulted but were not intended. The concluding section raises some questions about the nature of higher education and the pattern of relative success exhibited by the innovations identified in the paper, and presents some speculations about the directions that future developments in distance education may take in Canada. (DJR)

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INNOVATION IN HIGHER EDUCATION: THE CASE OF DISTANCE EDUCATION

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Invited paper presented at the Conference of the Canadian Society for Studies in Higher Education, Montreal, Quebec; May, 1985

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ABSTRACT

This paper is essentially concerned with distance education as innovation in higher education. Specific aspects of this innovation are identified through reference to three Canadian institutions offering university level courses for credit. Examples are drawn from these institutions of: innovations intended but not achieved; intended innovations that did succeed; and innovations that resulted but were not intended. Questions are raised regarding the nature of higher education and the pattern of relative success exhibited by the innovations identified in the paper.

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INNOVATION IN HIGHER EDUCATION:
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> "It is curious that distance learning is often viewed as a relatively recent development when, in fact, correspondence courses were in use in this country as long ago as the 1870's; by 1892 the University of Chicago had established a home-study division. The National University Extension Association, including a division of correspondence study, was created in 1915, and the National Home Study Council was founded in 1926. During the next 50 years, some 55 million Americans took correspondence courses, and today approximately three million are studying by mail."
>
> (M.F. Beaudoin, Chronicle of Higher Education, April 24, 1985)

Although distance education, in one form or another, has been a part of higher education for some time, in the past five to ten years it has developed into something of a minor phenomenon. Perhaps the most striking manifestation of this "emergence" of distance education in higher education has been the establishment of significant numbers of institutions around the world that have been changed by mandate with a particular responsibility for distance education.

"Something Old, Something New, Something Borrowed,...."

Why is it that something that has been around for as long as distance learning should have (reasonably) suddenly become a focal point for such interest and activity? In what sense does such a venerable endeavour qualify as innovation in higher education? Michael Beaudoin, in his article in the Chronicle, provides us with some sense of what differentiates "new" distance education from "old" education. He states:

> "Most external degree programs developed by colleges and universities in recent years are a far cry from the original correspondence

> schools. Committed teachers, excellent materials, sophisticated technology, good quality control, substantial student services, and strong organizational support make external programs a desirable means of providing educational opportunity to ambitious adults."

While most people acquainted with current practice in distance education would agree with his characterization, I think we can benefit from scratching a bit deeper and supplementing this account.

Distance Education as Open Learning

In its first incarnation as correspondence study, distance education was devised as a means of providing education to students who were geographically isolated and who were unable to attend classes in the conventional manner. Although a somewhat indirectly derived benefit, correspondence study also permitted students the flexibility of studying at a rate and according to a pattern that was more compatible with individual personal circumstances and preferences. In many instances, institutions of higher education chose to build upon these two principles only in extending access to higher education. Correspondence education was intended to be as like "in-residence" study as it possibly could be. In these instances, distance education evolved pretty much in one or more of the ways enumerated by Beaudoin--although in any particular circumstance development in one or more of the characterizations offered by Beaudoin could be considered arguable.

In other instances the removal of the barriers of time and place of study was regarded as just one (albeit conjoint) particular way in which to open access to higher education. In this case, distance education evolved in conjunction with what may be loosely referred to as "open learning systems"

(Wedemeyer; 1974). Within this context--although in ill-defined fashion--distance education has been thought of as a vehicle for a more general opening of access to higher education. Some of the other ways in which distance education has been used to extend access have been: opening admission to mature students; awarding advanced credit; removing residency requirements; credit banking; and granting credit for relevant life experience. The presence of features like these in distance education have also lead to distance education's being characterized as a form of "non-traditional" education. In yet another context, because distance education is largely an independent educational activity, it has been viewed as an opportunity to tailor instruction to individual needs and learning styles, particularly insofar as adult learners are concerned.

In all cases, however, there seems to have been a considerable expectation that major pedagogical and administrative advances could be achieved through the application of such technologies as computers (both mainframe and micros), satellites, television, videotext, teleconferencing, and so on. There also seems generally to have been an expectation that because distance education extends educational opportunity, there should in fact be greater participation in higher education by those groups that have traditionally been "educationally disadvantaged."

All of which to say that, to a large degree, what one might consider to be innovative about distance education depends on how wide a characterization of distance education is chosen.

The Nature of Innovation

Innovation seems to be one of those concepts that obfuscates discussion rather than facilitates it. The usual sense that people have of innovation is "innovation as invention"--that is, they think of products of technology such

as microprocessors, satellites, and so on. Others have a sense of innovation that extends to the process of bringing any new, problem-solving idea into use. And almost everyone regards improvement of the status quo as a defining characteristic. So, if it isn't new and doesn't make things better, then presumably it isn't an innovation. The difficulty is deciding on what constitutes "new" and what constitutes "better." Rather than expend a large amount of effort in attempting to be definitive with respect to what is an innovation and what is not, perhaps for present purposes we could just agree to be cheerfully tolerant and accept as innovative any product or way of doing things in higher education that seems to be even slightly different from what one usually finds.

An Example--Athabasca University

Although there are a number of organizations in Canada that could be used to exemplify innovation in higher distance education, this presentation will use Athabasca University as a sort of "conversation piece" around which to hang the discussion. Reference will also be made to the Open Learning Institute in British Columbia and the Tele-Universite in Quebec as additional sources of examples and to counter-point developments at Athabasca University.

Athabasca University is a distance education university that offers undergraduate, baccalaureate degrees in Liberal Studies and Administrative Studies. Students are able to complete their degrees entirely through home study. However, students are provided with a variety of support services, the most important of which is a telephone tutor whom the student may call collect to discuss problems related to the course of study being taken or to its administration. The University also offers a Bachelor of General Studies degree, which is an unstructured degree program that students can partially or totally complete through the accrediting of university-level study undertaken

elsewhere. The University regards itself as an "open-learning system" in the sense that: (i) the University has eliminated the constraint that a student is required to present himself or herself at a special location in order to receive instruction; (ii) students may enrol in courses at any time during the calendar year and--within a generous time limit--complete the course as quickly or as slowly as they might choose; and (iii) the University has set no academic requirement for admission to the University; students must, however, be 18 years of age or older.

Athabasca University was originally created in the late 1960's as an undergraduate campus-based university offering programs of study in the liberal arts and in science. The original conception of the University was that it would be innovative. Programs of study (and the courses they subsumed) were to be interdisciplinary and were to have been delivered using the latest in audio-visual communications technologies.

However, a fall-off in enrolments in the early 1970's, and the replacement of a 35 year old Social Credit government by a fledgeling Conservative government lead to a reconsideration of the establishment of Athabasca University. All planning was suspended and the Order-in-Council under which the University was established was rescinded. After some time and following much negotiation, planning was permitted to resume and was authorized by a new Order-in-Council. However, the terms of reference had changed considerably. The University officials were only authorized to undertake a study of the role that the University could assume within the postsecondary system in Alberta to provide an educational service that would not otherwise be available. As a result of this study, the provincial government agreed to re-establish the University on a five-year trial basis as an open, distance education

university. If the concept proved viable, then the University would be granted permanent status at the end of the pilot project phase.

The spirit of educational reform and innovation that underlay the early planning of the "first" Athabasca University carried over to the planning of its subsequent form. Courses of studies were to be approached from an inter-disciplinary point of view, instruction was to be delivered by innovative delivery mechanisms, and the University would experiment with alternative forms of governance. It was about this time that the University also adopted as a philosophical over-lay, a commitment to being an "open-learning system" in the style set forth by Wedemeyer (1974) among others. In addition, the expectation arose (albeit in an organic, developmental fashion) that the University would systematically study itself since it was a living laboratory in which many educational innovations were being tested through practical application. This expectation lead to a continuing and long standing concern regarding the role of research within the University, and the kind and amount of support that should be accorded "mission-oriented research" as opposed to the more traditional form of research and scholarly activity.

(1) Organizational and Administrative Innovation

Peters (1971) has characterized distance education as a form of "industrialized" education--and so it is in the sense that much of the business of distance education is producing a product, namely the home study course package. Production of this product requires that these various kinds of expertise be managed so as to yield the desired result. As a minimum, the process requires a subject matter expert to generate the content of a course. However, in its original conception of the process, Athabasca University added: an editor whose expert contribution would be substantive and copy editing; a visual designer whose expert contribution would be to interpret the

instruction visually so as to facilitate a student's learning the course material (as well as to look after aspects of the physical production of the course); and an instructional developer who would advise on instructional strategies, assessment, and the sequencing of course material to facilitate learning.

In addition, the instructional developer was conceived of as the manager of the process that coordinated these various contributions to produce the home study course package. Under this conceptualization the University would have a core of instructional developers and visual designers, and editors. There would be few full-time academic staff, with most of the subject matter contributions coming from academics recruited from outside of the University on term definite, task specific contracts. The telephone tutorial support required during delivery would be arranged for on the same basis.

Instructional developers, visual designers, editors and subject matter experts would be drawn into course teams from their respective organizational homes under a matrix style of management. The organizational home for a course team (while it existed) was "course development"--a unit that was headed by a Director in whom was vested budgetary control for all expenditures associated with producing a course.

Over time, Athabasca University has changed the way in which it manages and administers its academic affairs. Course development and delivery functions are now located within the two program areas. There are no longer separate organizational units housing editors and instructional developers. Editors and instructional developers have been assigned to each program area and they are responsible administratively to the respective Director of Studies (who is dean-like in respect of his responsibilities). Courses may or may not have an editor or an ID. The University has concertedly and

systematically expanded its academic staff in an effort to have at least one faculty member for each of the subject areas in which the University offers courses. Although the University relies substantially on these staff to develop courses (and to administer their delivery), it still continues to rely heavily on contracted arrangements. However, academic activities are now faculty centered rather than ID centered. Administrative decisions regarding courses are now the responsibility of the particular academic staff member to whom the course has been assigned.

(2) Curricular and Instructional Innovation

In the first three or four home study courses produced by the University, great effort was devoted to ensuring that they followed the spirit of inter-disciplinary inquiry expected for the campus-based version of Athabasca University. However, under the combined pressures of having to produce courses more quickly and more cheaply, and having these courses transfer to other universities, Athabasca University quickly dropped this commitment. As a result, course content is now very conventional and often is formulated on the basis of what is a being offered elsewhere.

The University's early concern with educational innovation led it to adopt the "Mastery Model" instructional program during the pilot project phase. Some of the operational consequences resulting from the implementation of this model were: extensive course design based on behavioural objectives; substantial diagnostic evaluation of learning throughout courses; criterion--referenced assessment; an 80 per cent pass mark; and the provision of additional instructional opportunities and time for those students requiring it. Substantial problems arose from the model and many of its distinguishing features were altered significantly. However, vestiges of the Mastery Model

may be seen in Athabasca University's current instructional and assessment practices.

Despite its early considerable interest in multi-media instruction, Athabasca University has produced very little television and radio programming and has, in general, made modest use of these and other technologies. The primary reason is that it has been cheaper and faster to produce courses that are based primarily on written material. As has been the case elsewhere, technology seems to have found a more appropriate role in enhancing the standard home-study package.

It is also of some interest to note that at one time Athabasca University was considering expanding its role to include technical and vocational education at a distance--that is to become more like the Open Learning Institute of British Columbia. For various reasons, this initiative received very little support, particularly within the University. In addition, several attempts have been made to establish a non-credit, "continuing education" operation. This initiative has similarly met with little support. It seems ironic and puzzling that an institution so innovative in other respects should manifest the traditional academic attitude toward its curricula. On another hand, although Athabasca University has shown considerable interest in moving into graduate programs (the current mandate restricts them to Baccalaureate level programs), there seems to be considerable reluctance within government and the university system to support such an initiative.

As the University moved to embrace the Instructional Systems Development model, it adopted a needs assessment philosophy with respect to selecting and developing courses. This philosophy also carried over into considerations of programs of study. Specifically, the University began to follow an avowed policy of curriculum selection and development based on the characteristics

and needs of its adult students. This policy has now been superceded by a conventional academic style of curriculum and program development. Programs are now largely defined by reference to existing programs in other universities and courses are selected to "fit" into programs.

The experiment in governance is a matter that is independent of distance education and consequently won't be dealt with here (see, for example, Shale, 1984).

Conclusion

Although Athabasca University originally set out very deliberately to be innovative in all those dimensions that characterize a university, over time it has become more and more traditional in what it does and how it conducts its affairs. Why is this so, and what does it have to say about innovation in higher education?

Why is it that the OLI has very successfully managed to offer university, technical/vocational and adult basic education programs under one organizational roof whereas Athabasca University seems to have rejected any initiative to stray from university credit programming?

Why is it that the Tele-Universite has managed to offer courses and programs that are so innovative with respect to their orientation and inter-disciplinary character--while on the other hand university offerings at Athabasca University and the OLI should be so staunchly traditional?

Why is it that Athabasca University was unable to make the Instructional Systems Design approach to course development and delivery work, while the OLI has been very successful in its application of these principles?

Why has Athabasca University reverted to a traditional university academic structure--including the role of research--while both the OLI and the

Tele-Universite have been able to use academic structures that are innovative and that they presumably find effective?

On the other hand, why do the respective statuses of both the OLI and the Tele-Universite as university level institutions seem so open to question? The OLI clearly does not have university status and consequently, one presumes, is proscribed with respect to the kind and level of university programming it can undertake. The Tele-Universite on various occasions has had its very existence threatened by the organization of which it is a component--the Universite du Quebec.

The answers to these questions lies, I believe, in a deeper understanding of what a university is. The educational technology point of view that pervades distance education seems to regard education as a "packagable" product. Universities, however, are characterized by process, the quality of academic staff, and a commitment to the generation of new knowledge and understanding that pervades this process.

It was stated earlier that the two most apparent innovative features of distance education were to have been an almost revolutionary application of technology and an extension of educational opportunity. The tremendous growth in enrolments (and institutions) in distance education are ample testimony to the success of the latter innovational thrust. Large numbers of the enrolments (50-60 percent, in general) are from rural areas where people genuinely are deprived of the opportunity for university level study. In general, the majority of distance education students are female--a group that has historically been a minority at traditional universities. It is also apparent that distance education is providing the educational opportunity for people already working to better themselves professionally. It ought to be said, however, that there is a body of opinion that distance education is not doing enough to

help those who really need educational opportunity--those with a low level of previous education, those from the lower socio-economic groups, and those from groups that have traditionally been regarded as disadvantaged minorities.

There seems little doubt that the "technological revolution" has not lived up to expectations--although many people would argue that the holy grail is closer than ever (usually because of micros, satellites, and educational TV). Why the revolution hasn't occurred is a matter for some conjecture--cost and convenience has already been mentioned. Richard Clark, an evaluator of the effects of educational technology, offers the following additional point of view:

> "Five decades of research suggest that there are no learning benefits to be gained from employing different media in instruction, regardless of their obviously attractive features or advertised superiority....The best current evidence is that media are mere vehicles that deliver instruction but do not influence student achievement....."

There have been some unintended innovations resulting from distance education--the major one being a shift in focus from "teachers teaching" to "learners learning." In other words, to develop a distance education course, one has to be much more considered in designing and developing instruction. The fact that such instruction is so open to public inspection is an extremely powerful quality control agent. As the Open University in Britain has discovered, a corollary of this is that there is much demand for their courses from teachers who then use the course material to support their own teaching.

Another major unintended innovation--albeit a less than discrete one--has resulted because with distance education there is little or no sense to the usual educational jurisdictional boundaries. The melange that is resulting is forcing some very difficult questions. Do we have a free market situation? How do we rationalize the expenditure of resources? How do we solve inter-provincial coordination problems? One innovative consequence in response to these issues has been the relatively recent establishment of the Open University Consortium of British Columbia.

In the longer term, technology may be a source of some innovative development--particularly with respect to CAI--but perhaps in a fashion that may be unexpected to many. For example, D. Bent of The University of Alberta has stated that the most significant benefit from CAI may be what it tells us about the way people learn. However, the largest potential seems to reside in an extension of the concept of educational consortia. There will continue to be a demand for better (or perhaps even for just some) coordination of credits earned at Canadian universities. There also will be a demand for a ready source of packaged, home study, university courses. Perhaps the ideal consortium would be a regional or national expansion of the credit coordination style of consortium, like the British Columbia one, and a course-provider style of consortium, like the International Universities Consortium. However, a critical condition for the success of any consortium arrangement must be a formalized and appropriate framework--perhaps of the kind described by Romanow (1985). A consortium established on the basis of special interest only can not be effective.

If an appropriate framework can be determined, perhaps the creation of such a hybrid consortium may be a way of establishing the long sought national presence in higher education.

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